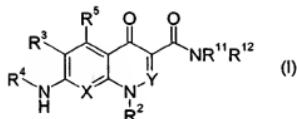


AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A platelet aggregation inhibitor comprising a quinolone derivative represented by the formula (I) or a pharmaceutically acceptable salt thereof as an active ingredient:



[the symbols in the formula have the following meanings:

X: C-R⁷ or N;

Y: C-R⁶ or N;

R¹¹: -H, a lower alkyl which may be substituted, or an amino which may be substituted with a lower alkyl which may be substituted;

R¹²: -H, or a lower alkyl or an aryl which respectively may be substituted, provided that R¹¹ and R¹² together with the adjacent nitrogen may form a cyclic amino which may be substituted;

R²: a lower alkyl or a cycloalkyl, an aryl or a hetero ring, which respectively may be substituted;

R³: a halogen, a lower alkyl or -O-lower alkyl;

R⁴: a cycloalkyl or a non-aromatic hetero ring, which respectively may be substituted, or a lower alkyl substituted with a cycloalkyl; provided that when R4 represents a non-aromatic hetero ring which may be substituted, a carbon atom constituting the ring binds to the adjacent NH;

R⁵: -H, a halogen, cyano, nitro, a lower alkyl, a halogeno-lower alkyl, a cycloalkyl, an aryl, a hetero ring, -O-lower alkyl, -OH, -NHCO-lower alkyl, -N(lower alkyl)CO-lower alkyl, an amino which may be substituted with a lower alkyl, or a cyclic amino which may be substituted;

R⁶: -H, a halogen, a lower alkyl or a halogeno-lower alkyl;

R⁷: -H, a halogen, a lower alkyl or a halogeno-(lower alkyl);

provided that when Y represents C-R⁶, R² and R⁶ together may form a lower alkylene or a lower alkenylene.

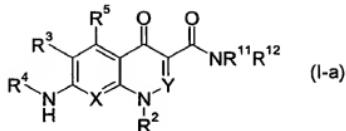
2. (original): A P2Y12 inhibitor comprising the compound according to claim 1 as an active ingredient.

3. (withdrawn): A method for inhibiting platelet aggregation in an individual, comprising administering a therapeutically effective amount of the compound of claim 1, and at least one pharmaceutically acceptable carrier, to the individual.

4. (withdrawn): A method for inhibiting P2Y12 in an individual, comprising administering a therapeutically effective amount of the compound of claim 1, and at least one pharmaceutically acceptable carrier, to the individual.

5 - 6. (canceled).

7. (currently amended): A quinolone derivative represented by the formula (I-a) or a pharmaceutically acceptable salt thereof:



[the symbols in the formula have the following meanings:

X: C-R⁷ or N;

Y: C-R⁶ or N;

R¹¹: -H, a lower alkyl which may be substituted, or an amino which may be substituted with a lower alkyl which may be substituted;

R¹²: -H, or a lower alkyl or an aryl, which respectively may be substituted, provided that R¹² and R⁴² together with the adjacent nitrogen may form a cyclic amino which may be substituted;

R²: a lower alkyl, or a cycloalkyl, an aryl or a hetero ring, which respectively may be substituted;

R³: a halogen, a lower alkyl or -O-lower alkyl;

R⁴: a cycloalkyl or a non-aromatic hetero ring, which respectively may be substituted, or a lower alkyl substituted with a cycloalkyl; provided that wherein R⁴ represents a non-aromatic hetero ring which may be substituted, a carbon atom constituting the ring binds to the adjacent NH;

R⁵: -H, a halogen, cyano, nitro, a lower alkyl, a halogeno-lower alkyl, a cycloalkyl, an aryl, a hetero ring, -O-lower alkyl, -OH, -NHCO-lower alkyl, N(lower alkyl)CO-lower alkyl, an amino which may be substituted with a lower alkyl, or a cyclic amino which may be substituted;

R⁶: -H, a halogen, a lower alkyl or a halogeno-lower alkyl;

R⁷: -H, a halogen, a lower alkyl or a halogeno-lower alkyl;

provided that when Y represents C R⁶, R² and R⁶ together may form a lower alkylene or a lower alkenylene and provided that 7 (cyclohexylamino) 1-ethyl 6-fluoro 4-oxo 1,4-dihydroquinoline-3-carbohydrazide is excluded.

8. (original): The compound according to claim 7, wherein X is CH.

9.-11. (canceled).

12. (currently amended): The compound according to ~~claim 11~~ claim 8, wherein R¹² is a lower alkyl substituted with one or more substituent groups selected from Group Q, wherein at least one of the substituent groups is selected from Group P:

Group P: -CO₂H, -SO₃H, -P(O)(OH)₂, and -OP(O)(OH)₂; and

Group Q: -F, -OH, -CO₂H, -SO₃H, -P(O)(OH)₂, and -OP(O)(OH)₂

13. (canceled).

14. (currently amended): The compound according to claim 7, which is
[2-({[7-(cyclohexylamino)-1-cyclopentyl-6-fluoro-4-oxo-1,4-dihydroquinolin-3-yl]carbonyl}amino)ethyl]phosphonic acid;
(2S)-2-({[7-(cyclohexylamino)-1-cyclopentyl-6-fluoro-4-oxo-1,4-dihydroquinolin-3-yl]carbonyl}amino)butanedioic acid,
2-({[7-(cyclohexylamino)-1-cyclopentyl-6-fluoro-4-oxo-1,4-dihydroquinolin-3-yl]carbonyl}amino)ethyl dihydrogen phosphate,
(2S)-2-({[7-(cyclohexylamino)-1-cyclopentyl-6-fluoro-4-oxo-1,4-dihydroquinolin-3-yl]carbonyl}amino)pentanedioic acid,
-[2-({[7-(cyclohexylamino)-6-fluoro-4-oxo-1-[(3S)-tetrahydrofuran-3-yl]1,4-dihydroquinolin-3-yl]carbonyl}amino)ethyl]phosphonic acid,
-[2-({[7-(cyclohexylamino)-6-fluoro-4-oxo-1-[(3R)-tetrahydrofuran-3-yl]1,4-dihydroquinolin-3-yl]carbonyl}amino)ethyl]phosphonic acid,
-[2-({[7-(cyclohexylamino)-1-(1-ethylpropyl)-6-fluoro-4-oxo-1,4-dihydroquinolin-3-yl]carbonyl}amino)ethyl]difluoroethyl]phosphonic acid,
-[2-({[7-(cyclohexylamino)-6-fluoro-1-[2-hydroxy-1-(hydroxymethyl)ethyl]-4-oxo-1,4-dihydroquinolin-3-yl]carbonyl}amino)ethyl]phosphonic acid,
-[2-({[7-(cyclohexylamino)-1-ethyl-6-fluoro-4-oxo-1,4-dihydrocinnolin-3-yl]carbonyl}amino)ethyl]phosphonic acid,
-[2-({[7-(cyclohexylamino)-1-(1-ethylpropyl)-6-fluoro-4-oxo-1,4-dihydrocinnolin-3-yl]carbonyl}amino)ethyl]phosphonic acid,
-[2-({[7-(cyclohexylamino)-1-(1-ethylpropyl)-6-fluoro-4-oxo-1,4-dihydroquinolin-3-yl]carbonyl}amino)ethyl]phosphonic acid,
(2S)-2-({[7-(cyclohexylamino)-1-(1-ethylpropyl)-6-fluoro-4-oxo-1,4-dihydroquinolin-3-yl]carbonyl}amino)pentanedioic acid or,
(2S)-2-({[7-(cyclohexylamino)-1-(1-ethylpropyl)-6-fluoro-4-oxo-1,4-dihydrocinnolin-3-yl]carbonyl}amino)pentanedioic acid ~~or~~

[2-({[7-(cyclohexylamino)-1-cyclopentyl-6-fluoro-4-oxo-1,4-dihydroquinolin-3-yl]carbonyl}amino)ethyl]phosphonic acid, or a pharmaceutically acceptable salt thereof.

15. (currently amended): A pharmaceutical composition comprising a compound according to any one of claims 7, 8, 12 or ~~through~~ 14 and a pharmaceutically acceptable carrier.

16. (original): The pharmaceutical composition according to claim 15, which is a platelet aggregation inhibitor.

17. (original): The pharmaceutical composition according to claim 15, which is a P2Y12 inhibitor.

18. (withdrawn - currently amended): A method for inhibiting platelet aggregation in an individual, comprising administering a therapeutically effective amount of the compound of any one of claims 7, 8, 12 or ~~through~~ 14, and at least one pharmaceutically acceptable carrier, to the individual.

19. (withdrawn - currently amended): A method for inhibiting P2Y12 in an individual, comprising administering a therapeutically effective amount of the compound of any one of claims 7, 8, 12 or ~~through~~ 14, and at least one pharmaceutically acceptable carrier, to the individual.

20 - 21. (canceled).

22. (new): The compound according to claim 7, which is [2-({[7-(cyclohexylamino)-1-cyclopentyl-6-fluoro-4-oxo-1,4-dihydroquinolin-3-yl]carbonyl}amino)ethyl]phosphonic acid,

2-({[7-(cyclohexylamino)-1-cyclopentyl-6-fluoro-4-oxo-1,4-dihydroquinolin-3-yl]carbonyl}amino)ethyl dihydrogen phosphate,
[2-({[7-(cyclohexylamino)-1-(1-ethylpropyl)-6-fluoro-4-oxo-1,4-dihydroquinolin-3-yl]carbonyl}amino)-1,1-difluoroethyl]phosphonic acid,
[2-({[7-(cyclohexylamino)-1-ethyl-6-fluoro-4-oxo-1,4-dihydrocinnolin-3-yl]carbonyl}amino)ethyl]phosphonic acid,
[2-({[7-(cyclohexylamino)-1-(1-ethylpropyl)-6-fluoro-4-oxo-1,4-dihydrocinnolin-3-yl]carbonyl}amino)ethyl]phosphonic acid, or
[2-({[7-(cyclohexylamino)-1-(1-ethylpropyl)-6-fluoro-4-oxo-1,4-dihydroquinolin-3-yl]carbonyl}amino)ethyl]phosphonic acid,
or a pharmaceutically acceptable salt thereof.